

III. Remarks

Responsive to the outstanding Examiner's Action, the applicant has carefully studied the Examiner's comments. Favorable reconsideration of this application is respectfully requested in light of the following detailed discussion.

Claims 22-44 are pending in the application and stand rejected. Claims 1-21, 24, 27, 35, 37-39, 41 and 42 have been cancelled or are being cancelled herewith. Claims 22-23, 25-26, 28-34, 36, 40, 43, and 44 have been amended. Claims 46-50 are new. A listing of the pending claims, along with a status indicator of each claim, appears above.

Claims 22-23, 26-27, 30, 32-33, 35, 37 and 39 are rejected under 35 USC 102(b) as being anticipated by Takahashi et al (P 10241707 A).

Independent claim 22 has been amended to require "at least one distribution structure forming at least one continuous channel for distributing a medium." The Examiner indicated that the Takahashi reference teaches a distribution structure via item 5, a reaction gas flow path.

In view of Applicant's amendment to claim 22, the distribution structure must form at least one continuous channel. Structure 5 in Takahashi comprises a plurality of individual loops that are offset from one another so that they do not form a channel and they do not form a continuous channel. Structure 5 therefore does not teach or suggest each and every element of claim 22 as amended. According to the MPEP, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." See MPEP 2131 (quoting *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (CAFC 1987)) (emphasis added). Applicant therefore respectfully requests that the rejection of claim 22, and the amended claims that depend on claim 22, be withdrawn.

Amended independent claim 22 also now requires that the distribution structure have a plurality of elastic portions of outwardly reducing stiffness, where each elastic portion is elastic

perpendicular to the plane of the structured plate. It is respectfully submitted that Takahashi et al does not teach or suggest a plurality of elastic portions of outwardly reducing stiffness. Instead, the individual loops of Takahashi are identical in their size and shape, which at best indicates that if they are elastic, that they are consistently elastic, and do not comprise portions of outwardly reducing stiffness. Independent claim 45 is new and also requires a plurality of elastic portions of outwardly reducing stiffness, thus it is patentable over Takahashi for the same reason.

Independent claim 45 also requires a “continuous media distribution structure.” The offset, individual loops of Takahashi do not form a continuous media distribution structure. Therefore, for at least this reason, Takahashi does not anticipate claim 45. Furthermore, claim 45 requires that the continuous media distribution structure be media tight. The plurality of loops of Takahashi, by permitting media to flow about them and between them are not media tight.

Claims 22-24, 27, 29-35 and 37-42 were rejected under 35 USC 103(a) as being unpatentable over Elias (USPN 5,928,807) in view of Ren et al (WO 01/48852).

Independent claim 22 now requires at least one structured metallic plate comprising at least one distribution structure forming at least one continuous channel for distributing a medium, wherein said distribution structure has a plurality of elastic portions of outwardly reducing stiffness, each elastic portion being elastic perpendicular to the plane of said structured metallic plate.

The channel in Ren et al alleged by the Examiner must have perforations to permit fluid transfer between the flow channels. As stated above, claim 22 requires its channel to be “continuous”, or uninterrupted from entry to exit. The alleged channel in Ren et al is not continuous because the perforations readily permit, and in fact the Ren et al device requires, that media exit and flow between the channels.

It is noted that the Examiner relies upon Ren et al for its channel structure to modify the Elias reference. Thus, Ren et al reference must be taken for all that it teaches for the structure relied upon by the Examiner. As a result, if Elias is modified by Ren et al, the result will be that the alleged Elias channel structures are non-continuous.

Independent claim 22 has been further modified to specify that the distribution structure has a plurality of elastic portions of outwardly reducing stiffness. In paragraph 26 of the Office Action, the Examiner alleged that Elias teaches that the bipolar plate contains multiple elastic flow channels and an elastic seal integrated into the plate. Claim 22 as amended specifies that the distribution structure itself has the plurality of elastic portions. Thus, it is not that the plate has a plurality of elastic portions because it has separate components, such as channels and a seal structure, it is because the structure itself has the portions.

Additionally, the inclusion of a seal as part of the distribution structure so that a plurality of elastic portions in the art can be found amounts to impermissible hindsight reconstruction of Applicant's claim in the art. The seal in Elias does not function to distribute anything in the reference and it is set apart from the alleged channel in Elias, where fluid is distributed. Applicant therefore also requests that the rejection be withdrawn on this basis as well.

Furthermore, even if Elias teaches a distribution structure with a plurality of elastic portions, it does not teach or suggest that those portions have outwardly reducing stiffness. In fact, Elias teaches away from different stiffnesses by indicating that the prior art two material designs are disadvantageous because of leaking. The other alternative that Elias teaches is to use a single material, but Elias indicates that the seal and the plate are "identical". Further, Elias is entirely silent on any different stiffnesses of its plate or the need to modify stiffness anywhere in its plate.

Even if Elias somehow teaches or suggests as stiffness of its alleged structure, it teaches against that structure having an outwardly reducing stiffness. Specifically, Fig. 3 clearly shows a seal portion 16 that is both wider and taller than ducts 8. If Elias suggests anything, it is an outwardly *increasing* stiffness due to the wider and taller seal portion 16.

As stated above, new independent claim 45 requires a continuous media distribution structure that is media tight and which comprises a plurality of elastic portions of outwardly reducing stiffness. Neither Elias or Ren et al teach or suggest, together or in combination, a media tight structure. Instead, as provided above, Ren et al requires perforations in its alleged channel, so that it is not continuous, and neither teach or suggest that the media distribution structure itself has a plurality of elastic portions of outwardly reducing stiffness.

In light of the above discussion and the amendments to the independent claims, the amended independent claims of the present invention are patentable. Furthermore, the claims that depend on the independent claims, either directly or indirectly, contain all of the limitations thereof. Therefore, because the independent claim are patentable and the dependent claims each depend on the independent claims, the dependent claims are patentable over the references.

No fees are believed due with this response. In the event that fees are due, please charge them to Deposit Account No. 13-1816. Kindly credit any overpayment to the same account. In either case, please associate D030001-17782001 with any credit or debit of the Deposit Account.

In light of the remarks above, it is believed the claims are now in condition for allowance and an early Notice of Allowance is respectfully requested.

Should the Examiner wish to modify any of the language of the claims, applicant's attorney suggests a telephone interview in order to expedite the prosecution of the application.

Respectfully submitted,



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